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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,765

09/04/2003

Paul S. Nordman

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EXAMINER

WARD, JESSICA LEE

ART UNIT

PAPER NUMBER

1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/654,765

Applicant(s)

NORDMAN, PAUL S.

Examiner

Jessica L. Ward

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-13,15,17-25,27-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-13,15,17-25,27-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RCE

1. The request filed on 2/14/07 for a RCE under 37 CFR 1.114 based on parent Application No. 10/654,765 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. The rejection of claims 1 and 13 under 35 USC 103(a) as being unpatentable over Day et al. (US 5665450) in view of Marini (US 2322582) and further in view of Padden (US 5500272), as set forth in the previous action, has been withdrawn in light of the present amendment and the Examiners discovery of better prior art upon further searching.

3. The provisional obviousness-type double patenting rejection based on the claims in copending application 11/316,173, as set forth in the previous action, has been withdrawn in light of the present amendment.

Claim Objections

4. Claim 13 is objected to because of the following informalities: "and" should be deleted after "tool" in line 9. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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As to claim 13, it recites the limitation "the metal sheets" in line 8. There is insufficient antecedent basis for this limitation in the claim. It is suggested to "sheets" to --sheet--.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 13, 15, 17-25, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graff (US 3074832) in view of Day et al. (US 5665450, previously cited) and Padden (US 5500272, previously cited).

Graff teaches a method of manufacturing a transparent window skin panel (column 1, lines 14-15; column 3, lines 36-37; column 4, lines 11-12). The method steps comprising:

- providing a tool (column 3, lines 44-48)
- providing a tape (2) comprised of a plurality of fibers (column 1, line 70 – column 2, line 5)
- providing a non-fibrous metal sheet (1) having a plurality of spaced apart openings (22) formed therein (Figure 3; column 1, lines 48-55; column 2, line 69 – column 3, line 3)
- layering the tape and the metal sheet onto the tool such that the metal sheet and the tape are aligned on top of each other, such that the tape completely covers the openings and overlays substantially an entire outer surface of the metal sheet (Figures 1b and 3a; column 3, lines 44-62)
- impregnating the tape with resin and then heating the tool, the metal sheet, and the tape such that the resin flows to substantially cover an entirety of the metal sheet

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and the fibers, the resin and fibers being substantially transparent to form a plurality of see-through window portions in the skin panel in the spaced apart openings (Figures 1b and 3a; column 3, lines 44-62)

It is known in the window panel art, as it relates to a variety of industries including the aircraft industry (column 1, lines 45-46), to bond transparent fibrous pre-impregnated resin tapes to other window panel components (i.e. sheets made from glass, transparent polycarbonate, transparent PMMA, etc.) by melting and curing the resin in the tapes, as taught by Day (column 3, lines 5-8 and 52-65; column 11, lines 48-51; column 13, lines 20-23; column 15, lines 15-25 and 44-46). It is also known in the aircraft industry to make composite panels by bonding fibrous pre-impregnated resin tapes to metal sheets by melting and curing the resin in the tapes, as taught by Padden (Figure 1; column 1, lines 12-13; column 2, lines 19-25).

One reading Graff as a whole would have appreciated that the presence of a metal frame in the finished window panel is the critical aspect of the invention and not the point at which impregnation of the fibrous tapes takes place (column 1, lines 10 – 55). Therefore, it would have been obvious to one having ordinary skill in the art to use fibrous pre-impregnated resin tapes to make the window panel of Graff, in light of the teachings of Day and Padden, because this simplifies the lamination process since the resin does not have to be applied in-situ. It also affords manufacturers the luxury of having the pre-impregnated tapes made at another location and/or time since they can be stored and shipped very easily.

The preamble recites a window panel “for an airborne mobile platform.” This is a recitation of intended use and therefore the window panel need only be capable of being used for

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such a purpose. One having ordinary skill in the art would readily appreciate that the window panel of Graff would be capable of being used as a window for an airborne mobile platform.

9. Claims 13, 15, 17-25, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graff, Day et al. and Padden as applied to claim 13 above, and further in view of Skubic et al. (US 5039566, of record).

If it is not taken that the window panel of Graff need only be capable of being used as a window for an airborne mobile platform, the Examiners position is that such a use would have been obvious to one of ordinary skill in the art given that window panels made from transparent resin-impregnated fibrous tapes is known in the airborne mobile platform industry, as taught by Skubic (column 1, lines 5-35; column 2, lines 8-68; column 4, lines 34-60; column 5, lines 13-38).

10. Claims 1, 3-7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graff, Day et al., Padden and Skubic as applied to claims 13, 15, 17-25 and 27-33 above, and further in view of Shorr (US 3081205).

All the limitations were addressed above except the window panel comprising a plurality of metal sheets to form a frame structure, wherein the metal sheets define an opening, and a plurality of fibrous pre-impregnated resin tapes where the tapes are interleaved between the metal sheets. Graff teaches the metal sheet (1) forming a frame structure (column 2, lines 42-57; column 2, line 69 – column 3, line 3), wherein the metal sheet defines an opening, and using a plurality of fibrous tapes (2) (column 1, line 70 – column 2, line 5; column 3, lines 44-52).

It is known in the art, as it relates to a variety of industries including the aircraft industry, the make a window panel using a plurality of metal sheets (7, 8, 27, 28) to form a frame

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structure, wherein the metal sheets define an opening, and a plurality of transparent resin tapes (3) where the resin tapes are interleaved between the metal sheets and the assembly is bonded together by melting the resin, as taught by Shorr (Figures 6-7; column 1, lines 13-23; column 7, lines 5-17; **column 7, line 60 – column 8, line 20; column 8, line 73 – column 9, line 20; column 7, lines 31-37**).

It would have been obvious to use a plurality of metal sheets to form the frame structure of Graff and interleave a plurality of the fibrous pre-impregnated resin tapes of Graff, as modified in view of Day and Padden, between the metal sheets because such is known in the art, as taught by Shorr, where increasing the number of metal sheets and fibrous tapes allows one to control the degree of insulation needed from the external environment.

Double Patenting

11. Applicant is once again advised that should claims 18-21 be found allowable, claims 23-24 and 27-28 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Response to Arguments

12. Applicant's arguments filed 3/28/07 have been fully considered but they are not persuasive.

13. On p. 11 of the remarks, Applicant requests reconsideration of the double patenting rejection of claims 23-24 and 27-28 as being duplicates of claims 18-21 in view of the

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amendments made to claim 13. The Examiner points out that even though claim 13 has been amended, claims 23-24 and 27-28 are still duplicates of claims 18-21. Applicant should cancel claims 23-24 and 27-28.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Ward whose telephone number is 571-272-1223. The examiner can normally be reached on Mon-Fri between 9AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jessica L. Ward
Primary Examiner
Art Unit 1733

